

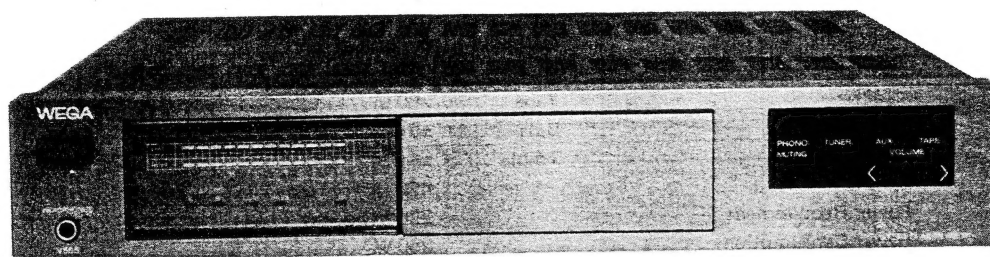
WEGA

HIFI STEREO AMPLIFIER

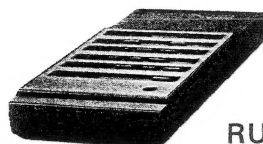
V555 RU555

Service Manual

8/81



V555



RU555

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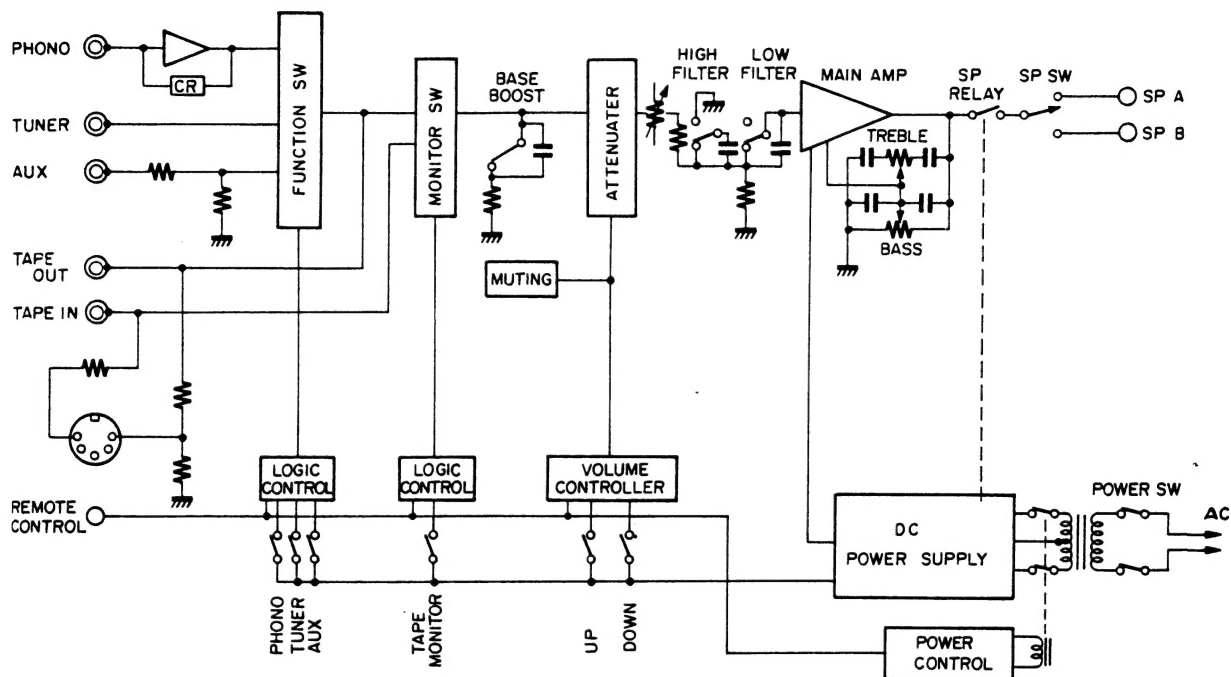
<i>Title</i>	<i>Page</i>
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SPECIFICATIONS

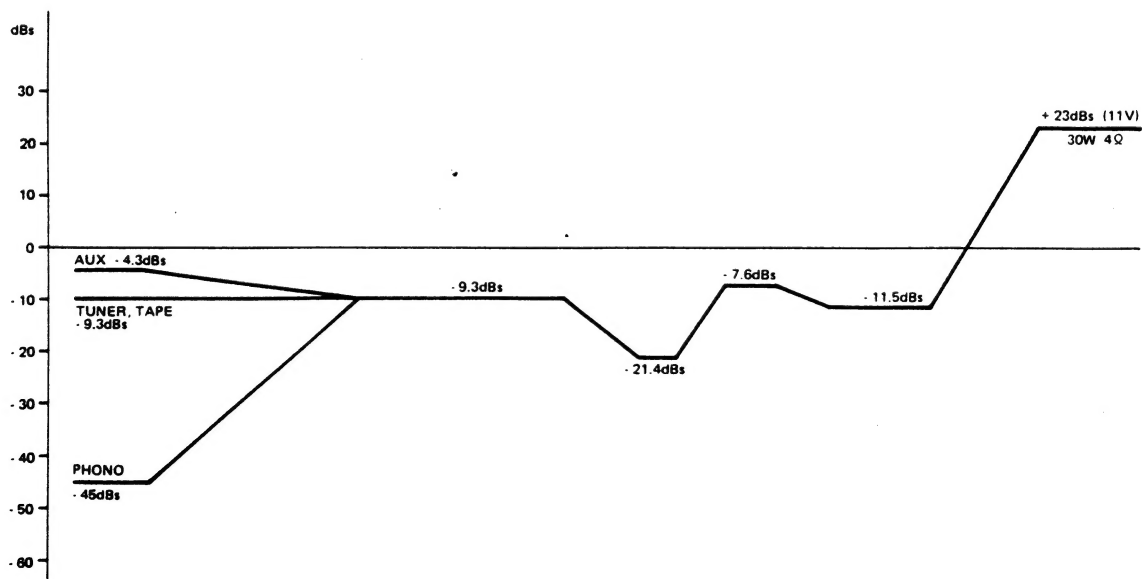
Power Output	2 x 35 W, 4 Ω (1 kHz)
Music Power Output	2 x 55 W, 4 Ω (1 kHz)
Distortion (1 kHz)	0.1 %
Frequency Response	40 Hz–12.5 kHz (30 W 0.3 %)
Signal to Noise Ratio	Phono MM 70 dB Weighted A (IHF)
	Tuner 80 dB Weighted A (IHF)
	Tape 80 dB Weighted A (IHF)
Input Sensitivity	Phono MM 4.3 mV/47 k Ω
	Tuner 260 mV/47 k Ω
	Tape 260 mV/47 k Ω
Tone Control	Bass \pm 8 dB/100 Hz
	Treble \pm 8 dB/10 kHz
Speaker	4 Ω ...16 Ω (Terminals & Jack)
Power Requirement	220 V/50 Hz
Power Consumption	250 W
Dimensions (W x H x D)	430 x 80 x 294 mm
Weight	6.8 kg

SECTION 1 OUTLINE

1-1: Block Diagram – V555 –



1-2: Level Diagram V555

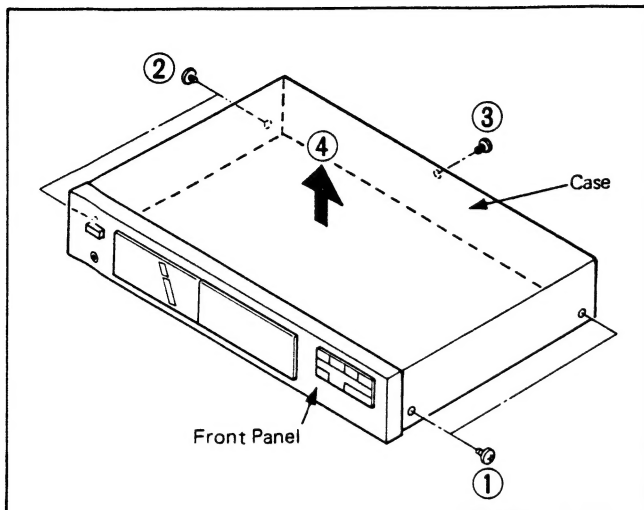


SECTION 2 DISASSEMBLY

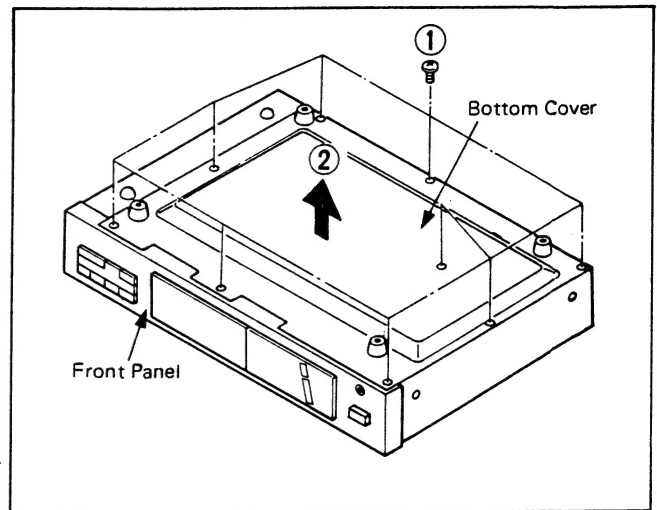
Removal

Follow the disassembly procedure in the numerical order given.

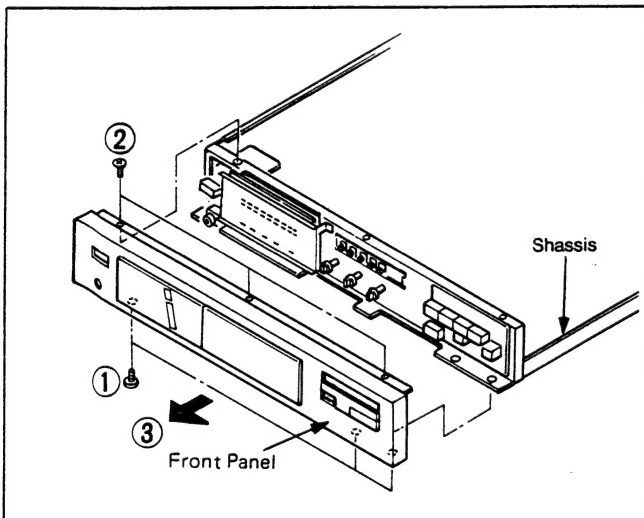
a. Case Removal



b. Bottom Cover Removal

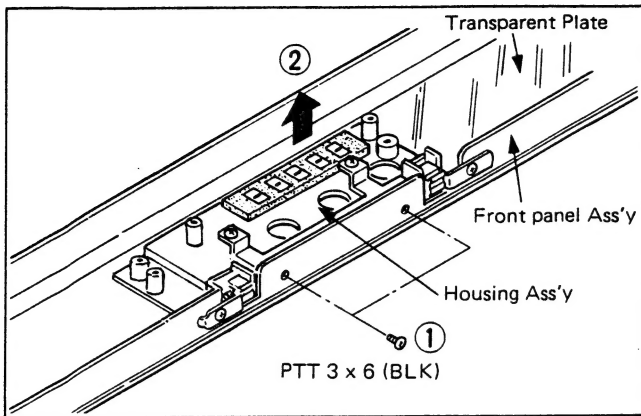


c. Front Panel Removal

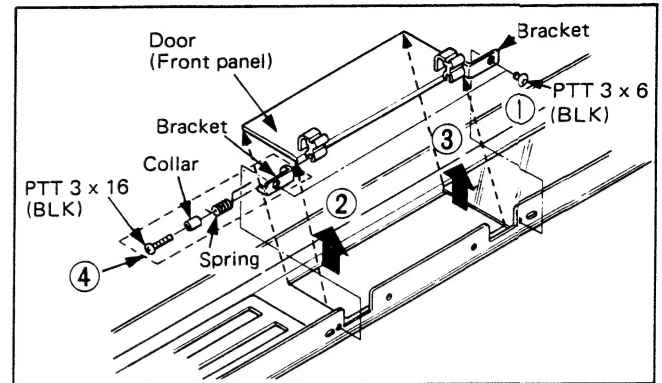


d. Door (Front Panel) Removal

1. Remove 4 screws in *Fig. 1*.

*Fig. 1*

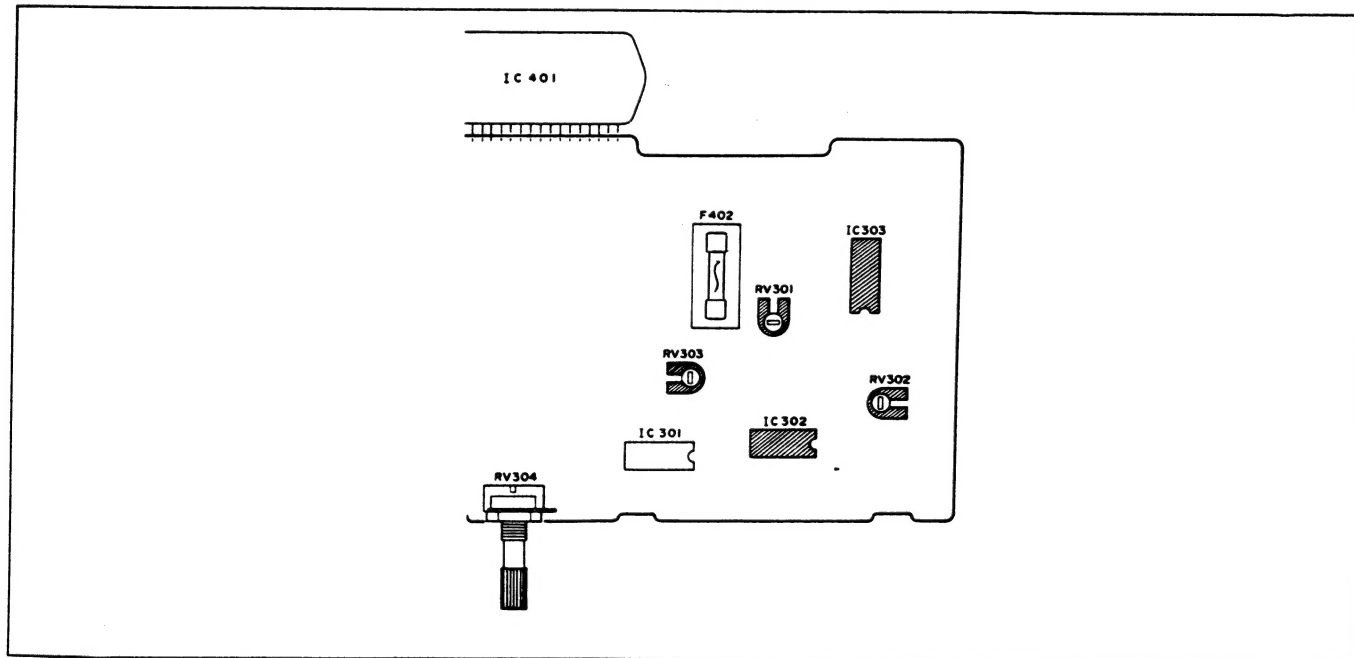
2. Remove 2 screws PTT 3 x 6 and pull out Front Panel Door as shown in *Fig. 2*.

*Fig. 2*

SECTION 3 ELECTRICAL ADJUSTMENT

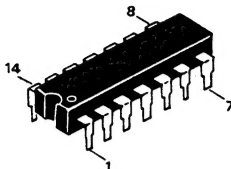


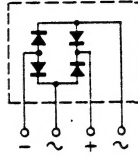
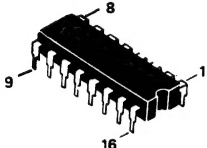
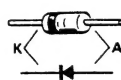
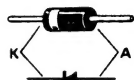
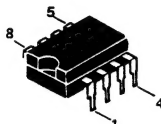
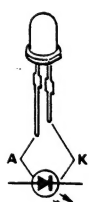
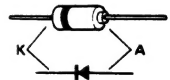
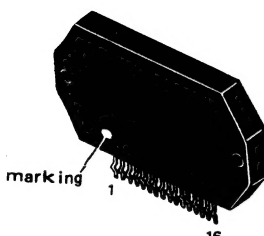
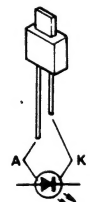
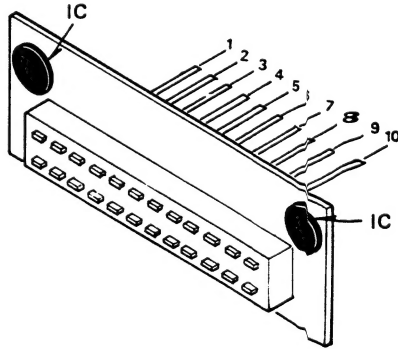
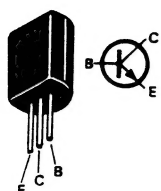
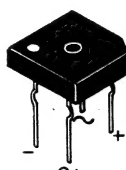
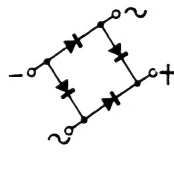
Step	Alignment & Conditions	Alignment Procedures	Adjust
1.	Volume Ramp Control	a. Connect DC VTVM between Pin 1 of IC302 and GND. b. Set Volume Control to its Maximum position. c. Adjust RV301 to obtain $3.5V \pm 0.1V$	RV301 for $3.5 \pm 0.1V$
2.	Volume Offset Function: Tuner Audio Input: 1kHz	a. Connect 4 ohm load and VTVM to speaker terminals. b. Feed 1kHz signal to TUNER INPUT jacks. c. Set Volume Control to its max. position (31th step) d. Adjust input signal level so that 20dBs (7.75V) output is obtained on VTVM. (left channel) e. Set Volume control to 16th step position by pushing 'VOLUME —' button 15 times. f. Adjust RV302 until the output reduces by 24dBs from 20dBs reference level. g. Next, measure right channel power output, it should be the same as that of left channel. If not, adjust RV303.	RV302 for -4dBs RV303 for -4dBs
3.	Volume Preset Point Check	a. Temporarily turn off power, then turn on the power to set Volume Control to its preset position (12th step). b. Measure voltage at each pin of 9, 10, 11, 12 & 13 of IC303. It should be 0V at pins 9, 10 & 13; 8V at pins 11 & 12.	
4.	Muting Level Check	a. Depress MUTING button and make sure power output reduction on VTVM is about 20dB	

Adjustment Parts Location



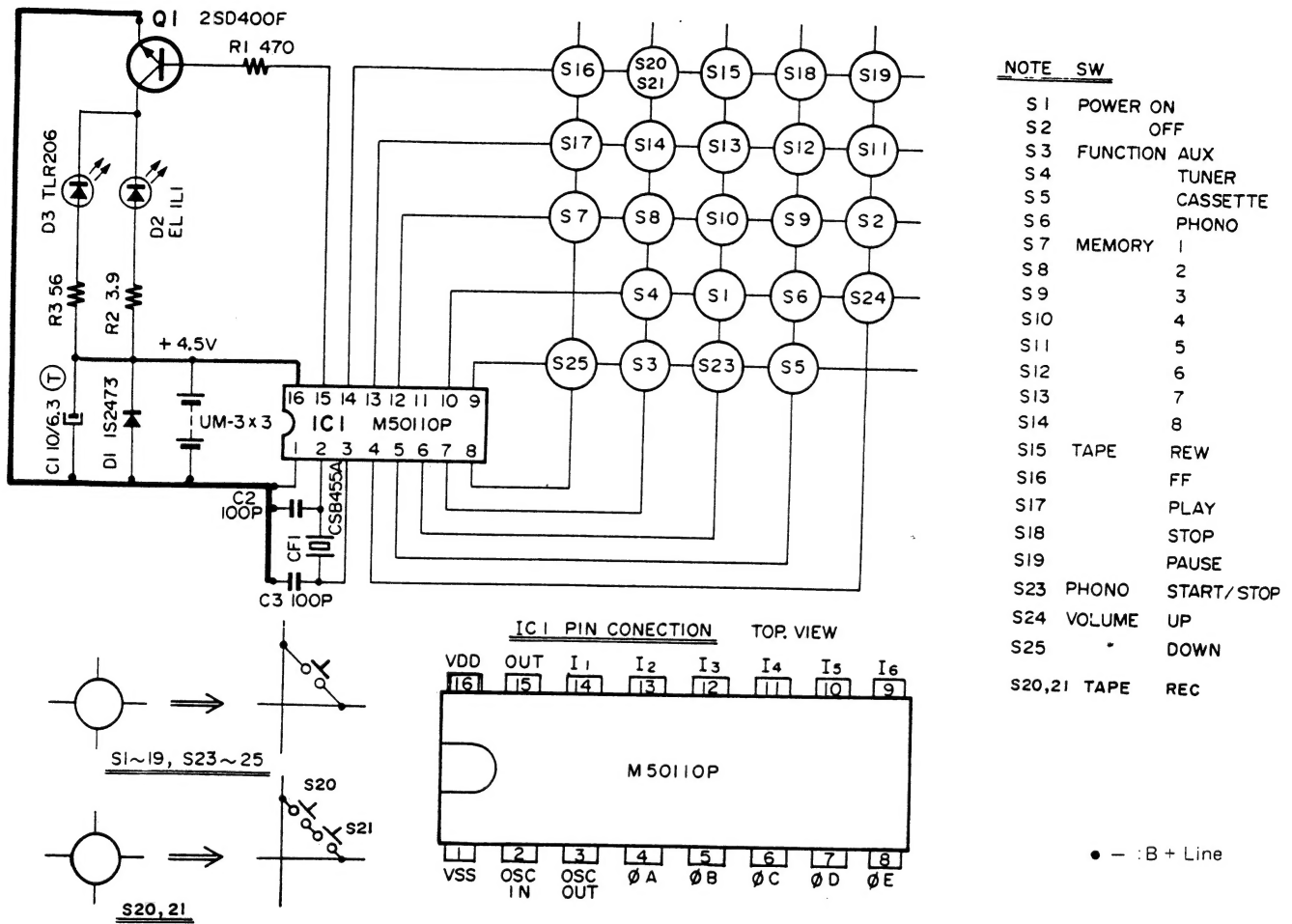
SECTION 4 DIAGRAMS

4-1: Replacement Semiconductors

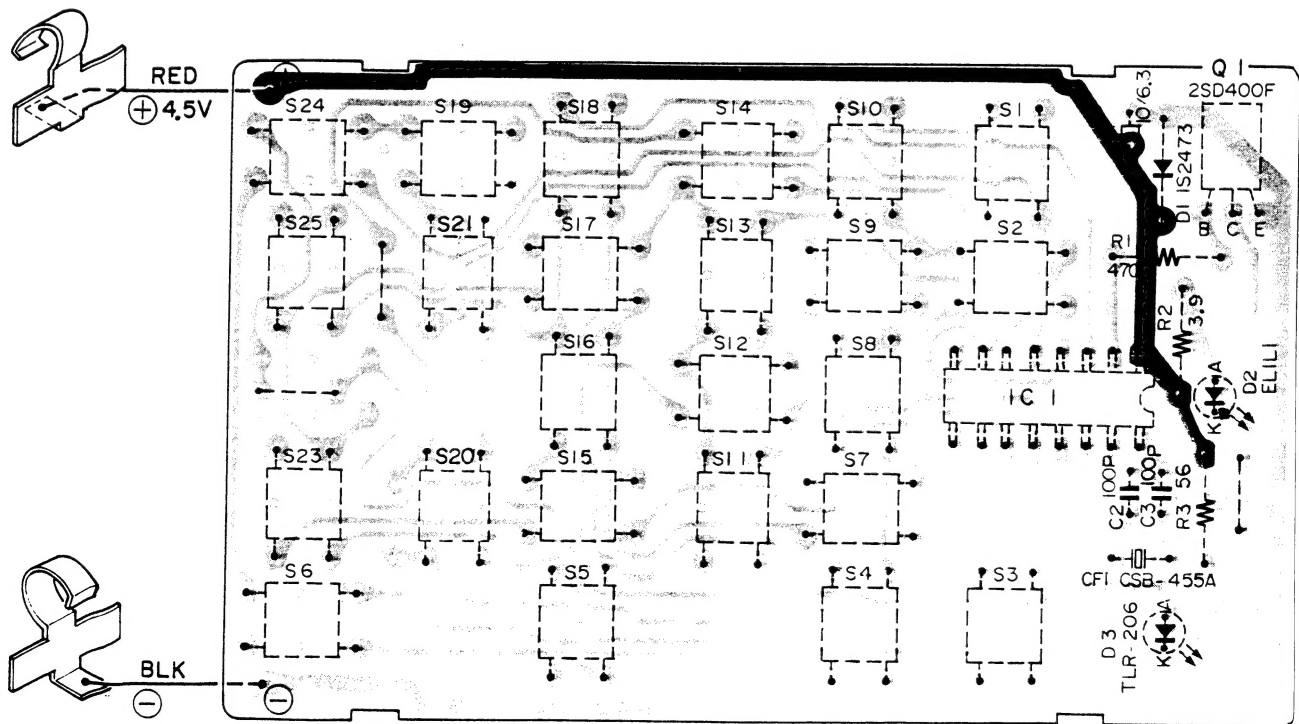
<p>IC104, 106 } MC14001B IC107, 501 } IC105 : MC14011B IC108 : MC14013B IC103 : MC14066B IC302 : LM324 IC301 : AN829</p> 	 <p>Q103 ~ 105, 301 ~ 308, Q504, 505, 507, 508, Q510, 701 ~ 703 } 2SC536F/KF</p> <p>Q106 ~ 108, 502, 509 : 2SA733Q</p>	<p>D505 : DS185E</p>  																						
<p>IC102 : MC14052B IC303 : LC7500</p> 	<p>D101 ~ 110, 301 ~ 303, D401 ~ 406, 507 ~ 511, D706 } 1S2473</p> 	<p>D512, 513 : 10E1</p> 																						
<p>IC101 : TL4558P</p> 	<p>D601 ~ 605 : LN81RCPLH</p> 	<p>D502, 503, 506 : GZA8.2U D504 : GZA16L</p> 																						
<p>IC401 : STK463</p> 	<p>D701 ~ 705 : TLR205</p> 	<p>ME401 (LED DISPLAY)</p> 																						
<p>Q506 : 2SD400E Q501, 503, 511 : 2SD863E</p> 	<p>D501 : S4VB20</p>  	<table border="1"> <thead> <tr> <th>NO.</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>VIN UPPER</td> </tr> <tr> <td>2</td> <td>D1, D1' COM. CAT.</td> </tr> <tr> <td>3</td> <td>VB UPPER</td> </tr> <tr> <td>4</td> <td>V LAMP</td> </tr> <tr> <td>5</td> <td>VREF MAX</td> </tr> <tr> <td>6</td> <td>VB LOWER</td> </tr> <tr> <td>7</td> <td>VCC</td> </tr> <tr> <td>8</td> <td>GND</td> </tr> <tr> <td>9</td> <td>VREF MIN</td> </tr> <tr> <td>10</td> <td>VIN LOWER</td> </tr> </tbody> </table>	NO.	DESCRIPTION	1	VIN UPPER	2	D1, D1' COM. CAT.	3	VB UPPER	4	V LAMP	5	VREF MAX	6	VB LOWER	7	VCC	8	GND	9	VREF MIN	10	VIN LOWER
NO.	DESCRIPTION																							
1	VIN UPPER																							
2	D1, D1' COM. CAT.																							
3	VB UPPER																							
4	V LAMP																							
5	VREF MAX																							
6	VB LOWER																							
7	VCC																							
8	GND																							
9	VREF MIN																							
10	VIN LOWER																							

555/RU555

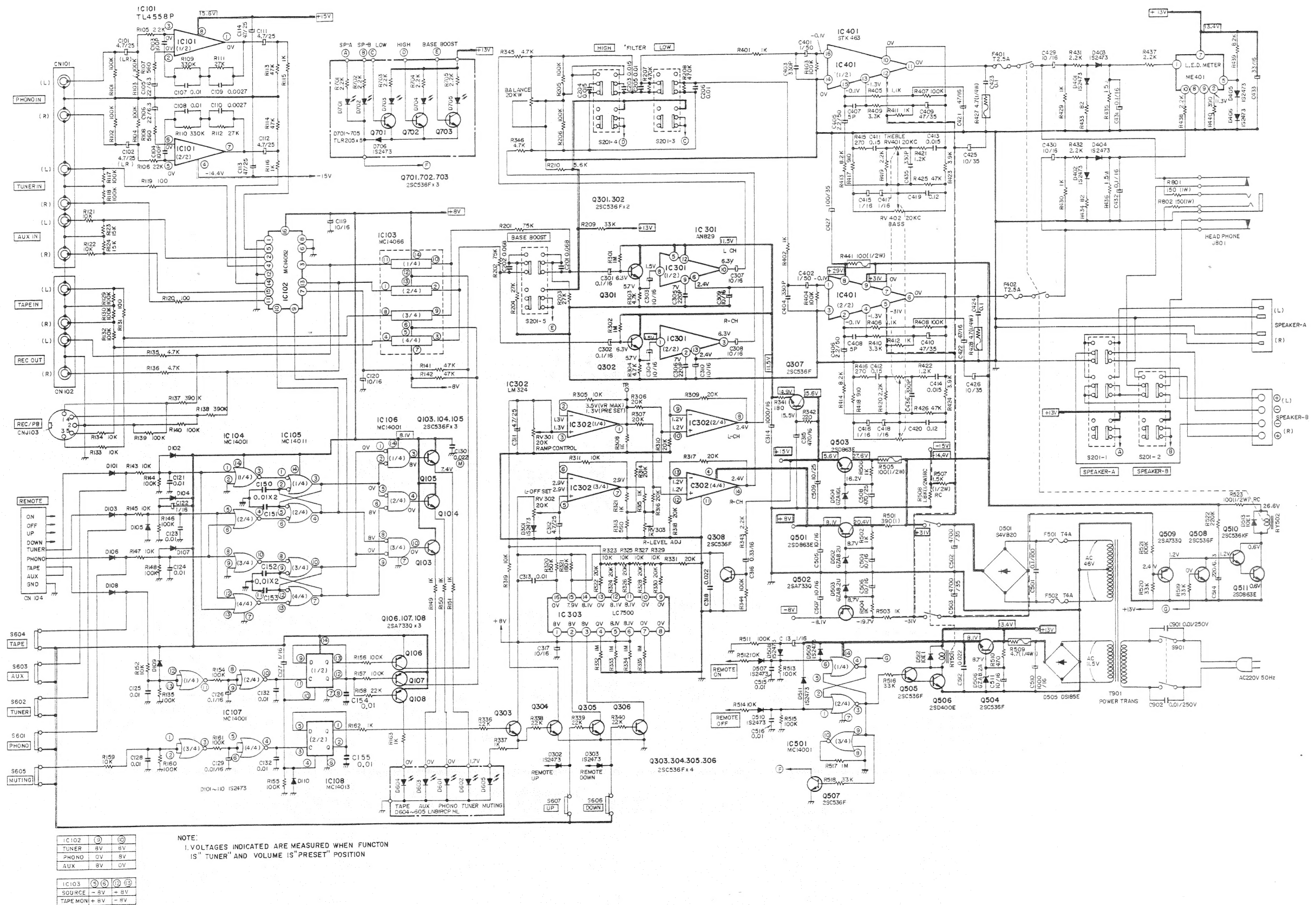
4-2: Schematic Diagram – RU555 –



4-3: Mounting Diagram RU555

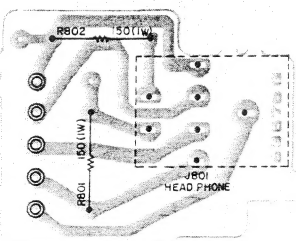
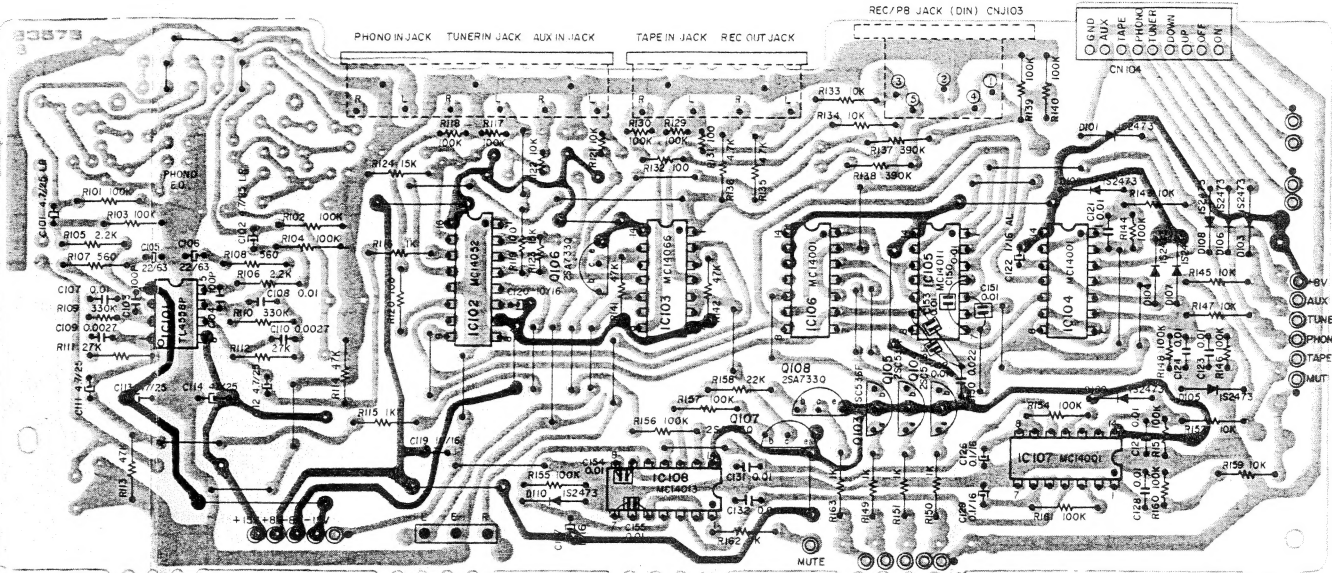
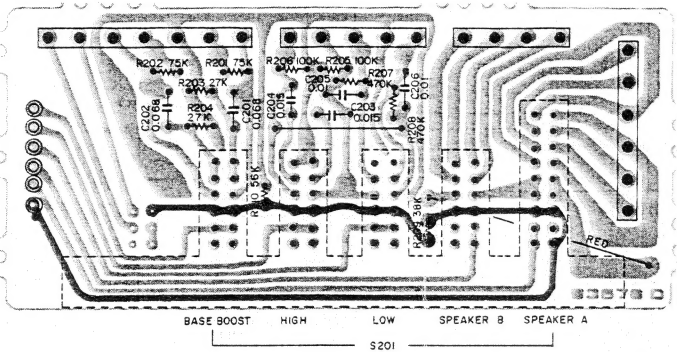
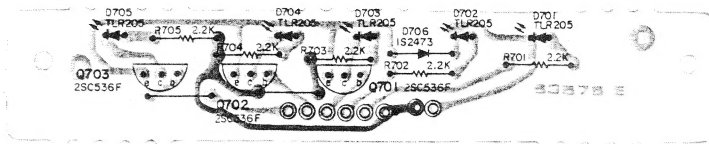
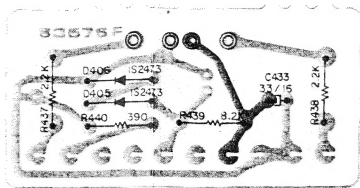
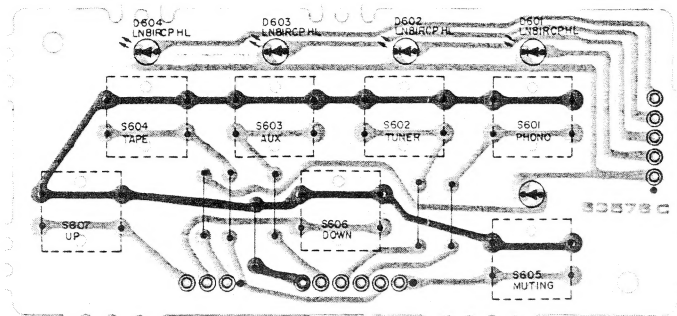


4-4: Schematic Diagram – V555 –

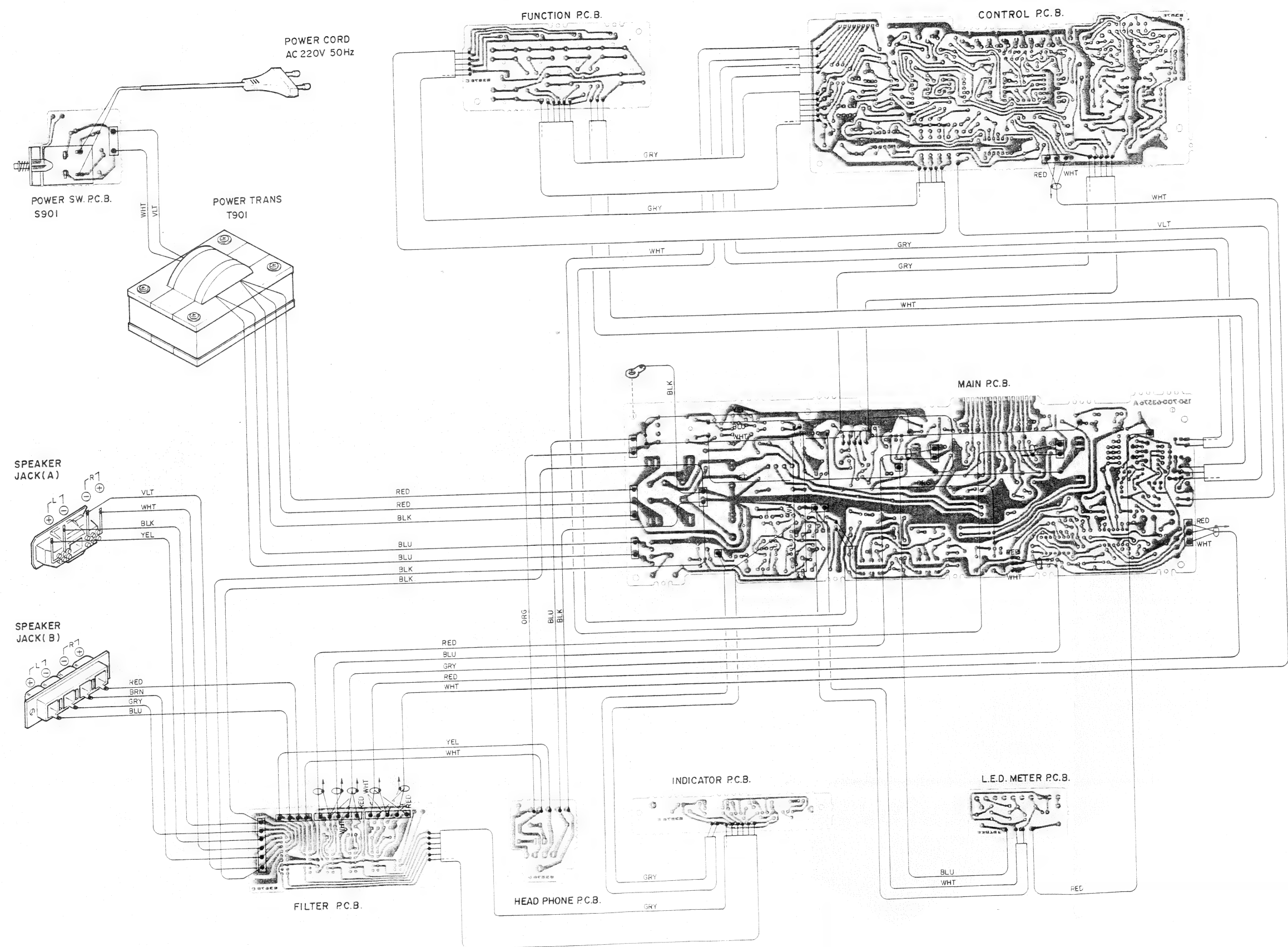


V555/RU555

4-5: Mounting Diagrams – V555 –

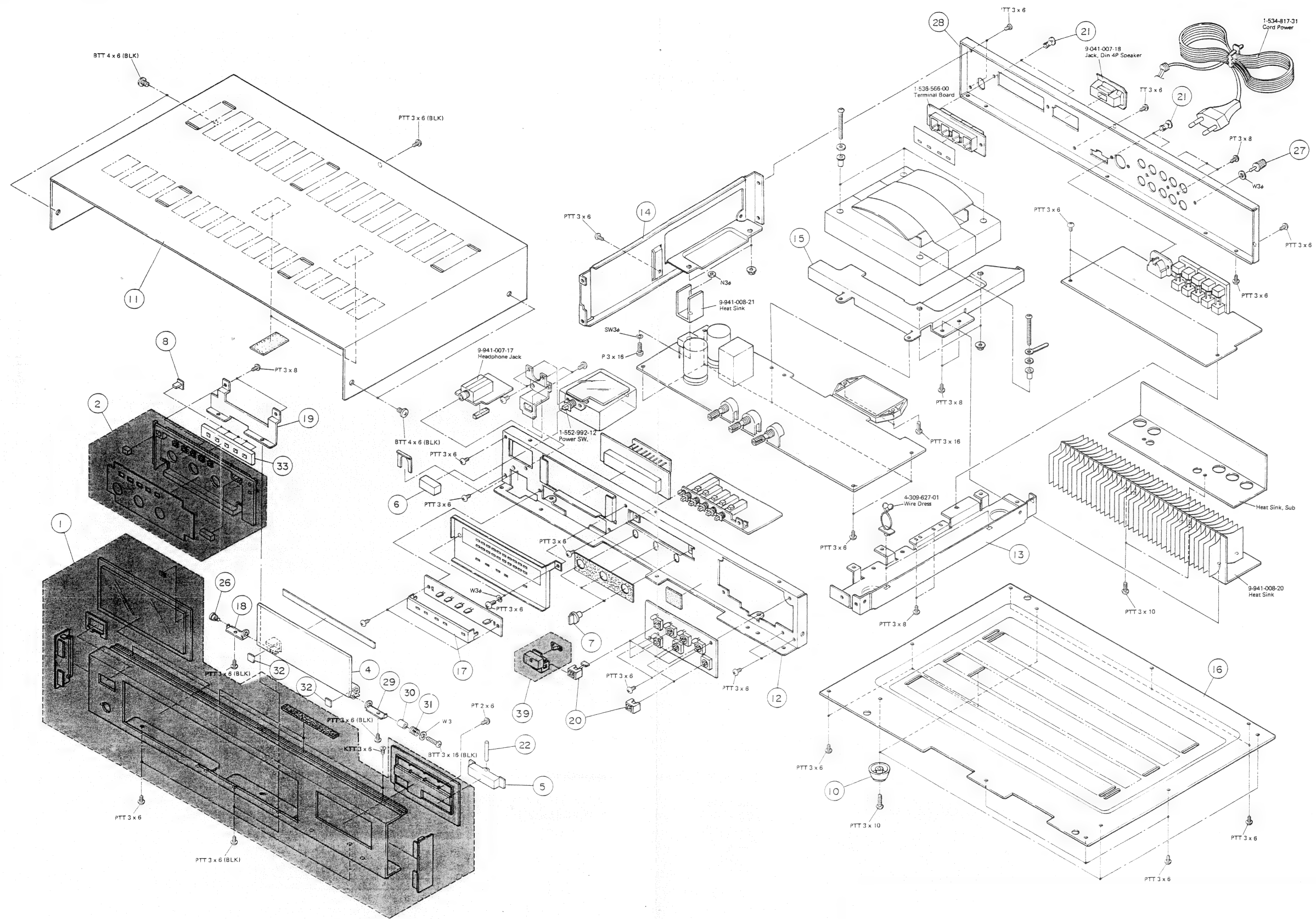


4-6: Wiring Diagrams — V555 —



SECTION 5
EXPLODED VIEWS

5-1: Exploded View – Cabinet V555 –

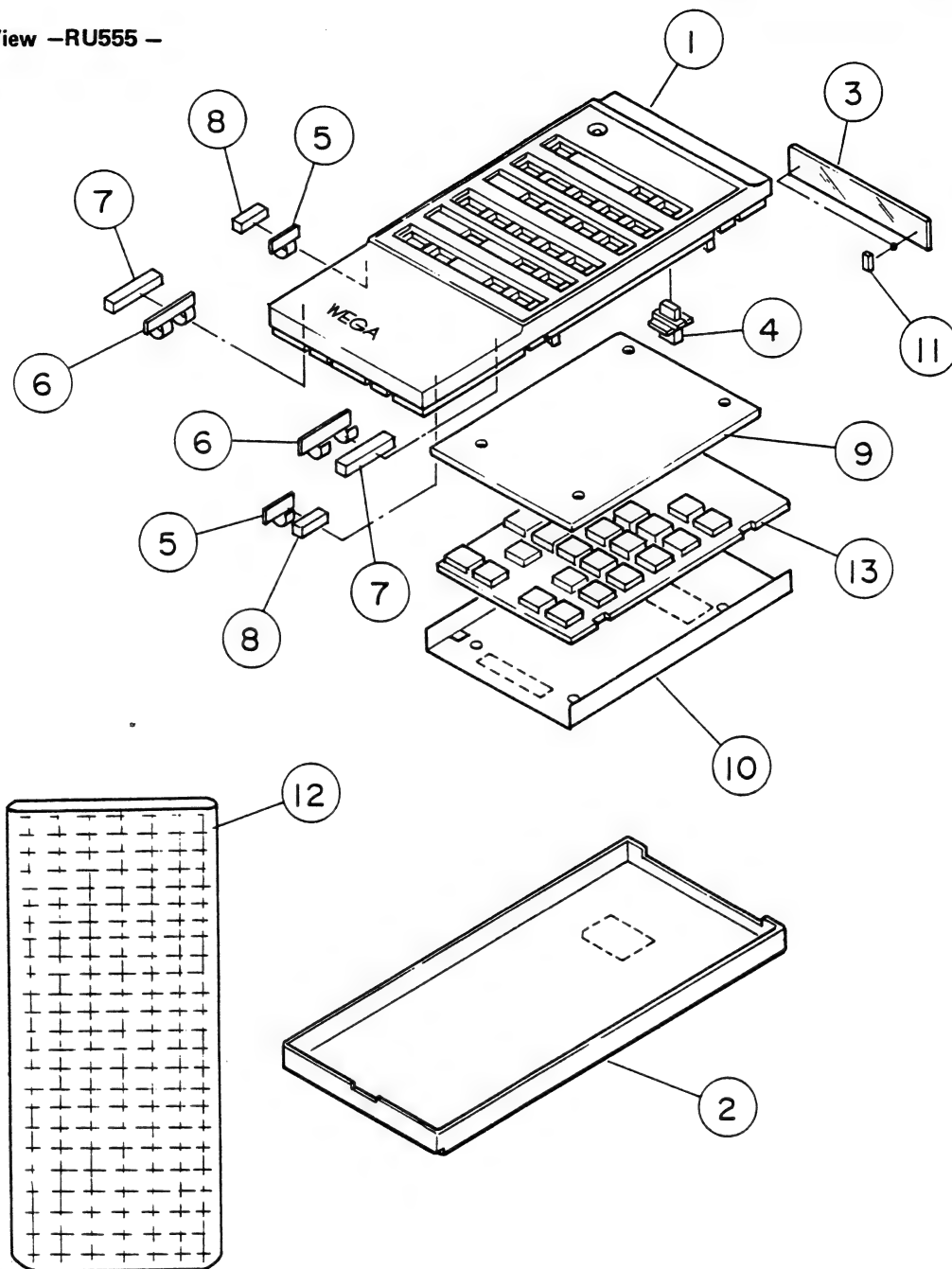


Parts List – Cabinet – V555 –

Illus. No.	Parts No.	Parts Name
1	9-941-011-85	Front Panel Ass'y (Front Panel) (Transparent Plate) (Escutcheon) (Escutcheon, Power Switch) (Plate, Side)
2	9-941-011-87	Housing Ass'y (Housing) (Magnet A) (Bracket) (Magnet B)
4	9-941-011-86	Door Ass'y (Door) (Bracket)
5	9-941-011-88	Knob, Volume
6	9-941-011-32	Knob Ass'y, Power
7	9-941-008-26	Knob, Bass
8	9-941-008-26	Knob, Function
10	X-486-131-21	Foot Ass'y
11	9-941-009-31	Case
12	9-941-008-28	Front Chassis
13	9-941-009-36	Frame (R)
14	9-941-011-16	Frame (L)
15	9-941-008-29	Chassis, Trans.
16	9-941-008-30	Cover, Bottom
17	9-941-008-31	Holder, LED

Illus. No.	Parts No.	Parts Name
18	9-941-009-42	Bracket, Door
19	9-941-009-43	Bracket, Housing
20	9-941-009-33	Ring, Flexible
21	4-812-134-01	Rivet, 3.5x5.5, Nylon
22	9-941-008-33	Shaft, VR
26	9-941-011-17	Special Screw 3x10
27	9-941-008-37	GND Terminal
28	9-941-011-91	Rear Panel
29	9-941-009-51	Bracket, Door
30	9-941-009-53	Color, Door
31	9-941-009-54	Spring, Dumper
32	9-911-844-XX	Cushion, Door
33	9-941-008-32	Cushion, Housing
39	9-941-011-33	Knob Ass'y, Memory (with ● Memory ● Indicator

5-2: Exploded View -RU555 -



Parts List - RU555 -

Illus. No.	Parts No.	Parts Name
1	9-941-008-43	Case Ass'y with • Case, Upper • Panel
2	9-941-008-44	Bottom Cover Ass'y with • Cover, Bottom • Label, Rating
3	9-941-008-46	Plate, Transparent
4	9-941-008-47	Knob, Function
5	9-941-008-48	Batt. Terminal (A)
6	9-941-008-49	Batt. Terminal (B)

Illus. No.	Parts No.	Parts Name
7	9-941-008-50	Cushion, Batt. Terminal (A)
8	9-941-008-51	Cushion, Batt. Terminal (B)
9	9-941-008-52	Cushion, Function Knob
10	9-941-008-53	Cover Ass'y with • Cover • Label, Caution • Label, Prod. No.
11	9-941-008-54	Cushion, Plate
12	9-941-008-55	Poly Bag
13	9-941-008-62	P.C.B. Ass'y
	9-941-008-63	P.C.B. Board

SECTION 6 PARTS LIST

(1) Electrical Parts List — V555 —

Ref. No.	Parts No.	Description
SEMICONDUCTORS		
— ICs —		
IC101	8-759-145-58	TL4558P
IC102	9-941-008-08	MC14052B
IC103	9-941-008-09	MC14066B
IC104, 106 107	8-759-040-01	MC14001B
IC105	8-759-040-11	MC14011B
IC108	8-759-040-13	MC14013B
IC301	9-941-008-15	AN829
IC302	9-941-008-14	LM324
IC303	9-941-008-13	LC7500
IC401	9-941-000-96	STK463
IC501	8-759-040-01	MC14001B
— Transistors —		
Q103, 104 105	8-729-809-03	2SC536F
Q106, 107 108	8-729-173-36	2SA733Q
Q301, 302 303, 304 305, 306 307, 308	8-729-853-63	2SC536F
Q501, 503 511	9-941-008-18	2SD863E
Q502, 509	8-729-173-36	2SA733Q
Q504, 505 507, 508	8-729-853-63	2SC536F
Q506	8-729-177-44	2SD400E
Q510	8-729-803-03	2SC536KF
Q701, 702 703	8-729-803-03	2SC536F
— Diodes —		
D101, 102 103, 104 105, 106 107, 108 109, 110 301, 302 303, 401 402, 403 404, 405 406	8-719-924-73	1S2473
D501	8-719-504-20	S4VB20
D502, 503 506	8-719-182-57	GZA8.211, Zener
D504	8-719-116-55	GZA16L, Zener
D505	9-941-000-28	DS185E
D507, 508 509, 510 511	8-719-924-73	1S2473
D512, 513	8-719-200-01	10E1
D601, 602 603, 604 605	9-941-008-11	LN81RCPL, LED

Ref. No.	Parts No.	Description
D701, 702 703, 704 705 D706	8-719-802-05 8-719-924-73	TLR205 1S2473
RESISTORS		
<i>All Resistors are in Ω. Common 1/4W Carbon Resistors are omitted. Refer to the list on Page 24 for their Part No.</i>		
RV301, 302	1-226-237-11	20K, Adjustable
RV303	1-226-233-11	1K, Adjustable
RV304	9-941-008-16	20K-W, Adjustable, Bal.
RV401, 402	9-941-008-17	20K-C, Adjustable, Tone
R427, 428	1-212-849-51	4.7, Fusible
R441	1-212-982-51	100, Fusible
R501	1-213-138-51	390, 1W, Metal-Oxide
R505	1-212-982-51	100, 1/2W, Fusible
R509	1-212-950-51	4.7, 1/2W, Fusible
R801, 802	1-213-133-11	150, 1W, Metal-Oxide
CAPACITORS		
<i>Common capacitors are omitted. Refer to the lists on Page 21 and 22 for their Part No.</i>		
C502, 503	1-125-193-00	4700 μ F, 35V, elect.
C901, 902	1-130-456-11	0.01 μ F, AC 250V, Metallized Film
MISCELLANEOUS		
S201	9-941-008-12	Switch, Push
S601, 602 603, 604 605, 606 607	1-552-412-11	Switch, Key Board
S901	1-552-992-12	Switch, Power
RY501	9-941-008-19	Relay, DC 12V, Power
RY502	9-941-008-20	Relay, DC 24V, SP-Out
F401, 402	1-532-286-11	Fuse, T2.5A
F501, 502	1-532-350-11	Fuse, T4.0A
ME401	1-520-407-11	Meter, LED Type
T901	9-941-008-23	Transformer, Power
	9-941-000-82	Holder, Fuse
	9-941-008-20	Heat Sink
	9-941-008-21	Heat Sink
	3-701-748-01	Clamp, Cord
	1-534-817-31	Cord, Power
	9-941-000-50	Stopper, Power Cord
J801	9-941-007-17	Jack, Headphone
CN101	1-507-639-00	Jack, DIN, 6P
CN102	1-507-652-00	Jack, Pin Type, 4P
CNJ103	1-507-618-00	Jack, DIN, 5P
CNJ104	1-560-263-00	Connector, 9P, Remote
CN901	9-941-007-18	Jack, DIN, 4P, Speaker
CN902	1-536-566-00	Terminal Board, Speaker
	9-941-008-22	P.C. Board

ACCESSORIES AND PACKING MATERIALS – V555 –

Parts No.	Description	Parts No.	Description
3-701-626-80	Poly Bag	9-941-011-89	Individual Carton
3-701-626-01	Poly Bag Unit	9-941-001-90	Instruction Manual
9-941-008-34	Cushion	3-703-259-02	Warranty Card
9-941-008-35	Spacer	9-941-008-42	Cord with Connector

(2) Electrical Parts List – RU555 –

Ref. No.	Parts No.	Description
IC1	9-941-008-57	IC, M50110P
Q1	8-729-177-43	TR., 2SD400E
D1	8-719-924-73	Diode, 1S2473
D2	9-941-008-58	LED, EL1L1
D3	9-941-008-85	LED, TLR206
CF1	9-941-008-59	IFT, 455kHz

Ref. No.	Parts No.	Description
S1~19 23~25	9-941-008-61	Switch, Key Board

(3) Electrical Parts List – Common. –

ELECTROLYTIC CAPACITORS

Note: Circled letter (A) to (Z) are applicable to European models only.

CAP. (μF)	RATING → : Use the high voltage rated one.					
	6.3 VOLT.	10 VOLT.	16 VOLT.	25 VOLT.	35 VOLT.	50 VOLT.
	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.
0.47						1-121-726-00 (A)
1.0						1-121-391-00 (A)
2.2						1-121-450-00 (A)
3.3	→	→	→	1-121-392-00 (A)	→	1-121-393-00 (A)
4.7	→	→	→	1-121-395-00 (A)	→	1-121-396-00 (A)
10	→	→	1-121-651-00 (A)	1-121-398-00 (A)	→	1-121-738-00 (A)
22	→	→	1-121-479-00 (A)	1-121-480-00 (A)	1-121-662-00 (A)	1-121-152-00 (A)
33	→	→	1-121-403-00 (A)	1-121-404-00 (A)	1-121-652-00 (B)	1-121-405-00 (A)
47	→	1-121-352-00 (A)	1-121-409-00 (A)	1-121-410-00 (A)	1-121-653-00 (B)	1-121-411-00 (A)
100	→	1-121-414-00 (A)	1-121-415-00 (A)	1-121-416-00 (A)	1-121-357-00 (B)	1-121-417-00 (B)
220	1-121-419-00 (B)	1-121-420-00 (B)	1-121-421-00 (A)	1-121-422-00 (B)	1-121-261-00 (C)	1-121-423-00 (B)
330	1-121-751-00 (B)	1-121-805-00 (B)	1-121-521-00 (C)	1-121-654-00 (B)	1-121-655-00 (D)	1-121-656-00 (C)
470	1-121-424-00 (B)	1-121-425-00 (C)	1-121-426-00 (C)	1-121-733-00 (B)	1-121-361-00 (E)	1-121-810-00 (D)
1000	→	1-121-736-00 (C)	1-121-245-00 (D)	1-121-657-00 (D)	1-121-388-00 (E)	1-123-061-00 (F)
2200	1-121-658-00 (B)	1-121-659-00 (C)	1-121-660-00 (D)	1-123-067-00 (F)	1-121-984-00 (F)	→
3300	1-121-661-00 (D)	1-123-075-00 (E)	1-123-071-00 (F)	→	→	→

CAP. (μF)	100 VOLT.	160 VOLT.	250 VOLT.	350 VOLT.
	PART No.	PART No.	PART No.	PART No.
0.47	→	→	→	→
1.0	1-123-249-00 (A)	1-123-252-00 (A)	1-123-003-00 (B)	1-121-168-00 (B)
2.2	1-123-250-00 (A)	1-123-026-00 (B)	→	1-123-028-00 (B)
3.3	1-121-995-00 (A)	→	1-123-004-00 (B)	1-123-006-00 (C)
4.7	1-123-255-00 (A)	1-121-246-00 (B)	1-121-759-00 (B)	1-123-007-00 (D)
10	1-121-126-00 (B)	1-121-999-00 (B)	1-123-254-00 (C)	1-123-008-00 (D)
22	1-121-996-00 (C)	1-123-253-00 (C)	1-123-005-00 (D)	1-123-022-00 (D)
33	1-121-997-00 (C)	1-121-757-00 (C)	→	→
47	1-123-251-00 (C)	1-121-919-00 (C)	→	→
100	1-123-084-00 (E)	→	→	→

CERAMIC CAPACITORS (A)

RATING							
CAP. (pF)	50 VOLT.	CAP. (pF)	50 VOLT.	CAP. (pF)	50 VOLT.	CAP. (μF)	50 VOLT.
	PART No.		PART No.		PART No.		PART No.
0.5	1-101-837-00	22	1-102-959-00	150	1-101-361-00	0.001	1-102-074-00
0.75	1-101-586-00	24	1-102-960-00	160	1-101-367-00	0.0012	1-102-118-00
1.0	1-102-934-00	27	1-102-961-00	180	1-102-976-00	0.0015	1-102-119-00
1.5	1-101-576-00	30	1-102-962-00	200	1-102-977-00	0.0018	1-102-120-00
2.0	1-102-935-00	33	1-102-963-00	220	1-102-978-00	0.0022	1-102-121-00
3	1-102-936-00	36	1-102-964-00	240	1-102-979-00	0.0027	1-102-122-00
4	1-102-937-00	39	1-102-965-00	270	1-102-980-00	0.0033	1-102-123-00
5	1-102-942-00	43	1-102-966-00	300	1-102-981-00	0.0039	1-102-124-00
6	1-102-943-00	47	1-101-880-00	330	1-102-820-00	0.0047	1-102-125-00
7	1-102-944-00	51	1-101-882-00	360	1-102-821-00	0.0056	1-102-126-00
8	1-102-945-00	56	1-101-884-00	390	1-102-822-00	0.0068	1-102-127-00
9	1-102-946-00	62	1-101-886-00	430	1-102-823-00	0.0082	1-102-128-00
10	1-102-947-00	68	1-101-888-00	470	1-102-824-00	0.01	1-102-129-00
11	1-102-948-00	75	1-101-890-00	510	1-101-059-00	0.022	1-101-005-00
12	1-102-949-00	82	1-102-971-00	560	1-102-115-00	0.047	1-101-006-00
13	1-102-950-00	91	1-102-972-00	680	1-102-116-00		
15	1-102-951-00	100	1-102-973-00	820	1-102-117-00		
16	1-102-952-00	110	1-102-815-00				
18	1-102-953-00	120	1-102-816-00				
20	1-102-958-00	130	1-101-081-00				

0.001μF = 1,000pF

CERAMIC (SEMICONDUCTOR) CAPACITORS (A)

RATING → : Use the high voltage rated one.					
CAP. (μF)	25 VOLT.	50 VOLT.	CAP. (μF)	25 VOLT.	50 VOLT.
	PART No.	PART No.		PART No.	PART No.
0.001	→	1-161-039-00	0.018	1-161-016-00	1-161-054-00
0.0012	→	1-161-040-00	0.022	1-161-017-00	1-161-055-00
0.0015	→	1-161-041-00	0.027	1-161-018-00	1-161-056-00
0.0018	→	1-161-042-00	0.033	1-161-019-00	1-161-057-00
0.0022	→	1-161-043-00	0.039	1-161-010-00	1-161-058-00
0.0027	→	1-161-044-00	0.047	1-161-021-00	1-161-059-00
0.0033	→	1-161-045-00	0.056	→	1-161-060-00
0.0039	→	1-161-046-00	0.068	→	1-161-061-00
0.0047	→	1-161-047-00	0.082	1-161-024-00	1-161-062-00
0.0056	→	1-161-048-00	0.1	1-161-025-00	1-161-063-00
0.0068	→	1-161-049-00			
0.0082	1-161-012-00	1-161-050-00			
0.01	1-161-013-00	1-161-051-00			
0.012	→	1-161-052-00			
0.015	1-161-015-00	1-161-053-00			

MYLAR CAPACITORS (A)

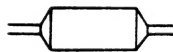
Note: Circled letters (A) to (Z) are applicable to European models only.

RATING											
CAP. (μF)	50 VOLT.	100 VOLT.	200 VOLT.	CAP. (μF)	50 VOLT.	100 VOLT.	200 VOLT.	CAP. (μF)	50 VOLT.	100 VOLT.	200 VOLT.
PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.
0.001	1-108-227-00	1-108-365-00	1-108-409-00	0.01	1-108-239-00	1-108-377-00	1-108-421-00	0.1	1-108-251-00	1-108-389-00	1-108-433-00
0.0012	1-108-351-00	1-108-366-00	1-108-410-00	0.012	1-108-357-00	1-108-378-00	1-108-422-00	0.12	1-108-363-00	1-108-390-00	1-108-434-00
0.0015	1-108-228-00	1-108-367-00	1-108-411-00	0.015	1-108-240-00	1-108-379-00	1-108-423-00	0.15	1-108-252-00	1-108-391-00	1-108-435-00
0.0018	1-108-352-00	1-108-368-00	1-108-412-00	0.018	1-108-358-00	1-108-380-00	1-108-424-00	0.18	1-108-364-00	1-108-392-00	1-108-436-00
0.0022	1-108-230-00	1-108-369-00	1-108-413-00	0.022	1-108-242-00	1-108-381-00	1-108-425-00	0.22	1-108-254-00	1-108-393-00	1-108-437-00
0.0027	1-108-353-00	1-108-370-00	1-108-414-00	0.027	1-108-359-00	1-108-382-00	1-108-426-00	0.27	1-108-854-00	-	-
0.0033	1-108-232-00	1-108-371-00	1-108-415-00	0.033	1-108-244-00	1-108-383-00	1-108-427-00	0.33	1-108-855-00	-	-
0.0039	1-108-354-00	1-108-372-00	1-108-416-00	0.039	1-108-360-00	1-108-384-00	1-108-428-00	0.39	1-108-856-00	-	-
0.0047	1-108-234-00	1-108-373-00	1-108-417-00	0.047	1-108-246-00	1-108-385-00	1-108-429-00	0.47	1-108-857-00	-	-
0.0056	1-108-355-00	1-108-374-00	1-108-418-00	0.056	1-108-361-00	1-108-386-00	1-108-430-00				
0.0068	1-108-237-00	1-108-375-00	1-108-419-00	0.068	1-108-249-00	1-108-387-00	1-108-431-00				
0.0082	1-108-356-00	1-108-376-00	1-108-420-00	0.082	1-108-362-00	1-108-388-00	1-108-432-00				



TANTALUM CAPACITORS

RATING → Use the high voltage rated one.							
CAP. (μF)	3.15 VOLT.	6.3 VOLT.	10 VOLT.	16 VOLT.	20 VOLT.	25 VOLT.	35 VOLT.
PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.
0.01					→	→	1-131-396-00 (B)
0.015					→	→	1-131-397-00 (B)
0.022					→	→	1-131-398-00 (B)
0.033					→	→	1-131-399-00 (B)
0.047					→	→	1-131-400-00 (B)
0.068					→	→	1-131-401-00 (B)
0.1					→	→	1-131-402-00 (B)
0.15					→	→	1-131-403-00 (B)
0.22					→	→	1-131-404-00 (B)
0.33					→	1-131-409-00 (B)	1-131-405-00 (B)
0.47	-	-	-	-	1-131-412-00 (B)	→	1-131-406-00 (B)
0.68	-	-	-	1-131-415-00 (B)	→	1-131-410-00 (B)	1-131-407-00 (B)
1.0	-	-	1-131-418-00 (B)	-	1-131-413-00 (B)	→	1-131-408-00 (B)
1.5	-	1-131-421-00 (B)	-	1-131-416-00 (B)	→	1-131-411-00 (B)	1-131-348-00 (B)
2.2	1-131-424-00 (B)	-	1-131-419-00 (B)	-	1-131-414-00 (B)	1-131-355-00 (B)	1-131-349-00 (B)
3.3	-	1-131-422-00 (B)	-	1-131-417-00 (B)	1-131-362-00 (B)	1-131-356-00 (B)	1-131-350-00 (B)
4.7	1-131-425-00 (B)	-	1-131-420-00 (B)	1-131-369-00 (B)	1-131-363-00 (B)	1-131-357-00 (B)	1-131-351-00 (C)
6.8	-	1-131-423-00 (B)	1-131-376-00 (B)	1-131-370-00 (B)	1-131-364-00 (B)	1-131-358-00 (C)	1-131-352-00 (C)
10	1-131-426-00 (B)	1-131-383-00 (B)	1-131-377-00 (B)	1-131-371-00 (B)	1-131-365-00 (C)	1-131-359-00 (C)	1-131-353-00 (D)
15	1-131-390-00 (B)	1-131-384-00 (B)	1-131-378-00 (B)	1-131-372-00 (B)	1-131-366-00 (C)	1-131-360-00 (D)	-
22	1-131-391-00 (B)	1-131-385-00 (B)	1-131-379-00 (C)	1-131-373-00 (C)	1-131-367-00 (D)		
33	1-131-392-00 (B)	1-131-386-00 (C)	1-131-380-00 (C)	1-131-374-00 (D)			
47	1-131-393-00 (C)	1-131-387-00 (C)	1-131-381-00 (D)				
68	1-131-394-00 (B)	1-131-388-00 (C)	-	-			
100	1-131-395-00 (D)	-	-	-			



TANTALUM CAPACITORS

RATING						
CAP. (μF)	3 VOLT.	6.3 VOLT.	10 VOLT.	16 VOLT.	20 VOLT.	35 VOLT.
PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.
0.033						1-131-273-00 (E)
0.047						1-131-274-00 (E)
0.068						1-131-275-00 (E)
0.1						1-131-276-00 (D)
0.15						1-131-277-00 (D)
0.22			-	-	1-131-262-00 (D)	1-131-278-00 (D)
0.33			-	-	1-131-263-00 (D)	1-131-279-00 (D)
0.47			1-131-169-00 (D)	-	1-131-264-00 (D)	1-131-280-00 (D)
0.68			-	1-131-258-00 (D)	1-131-265-00 (D)	1-131-281-00 (D)
1.0			1-131-254-00 (D)	-	1-131-266-00 (D)	1-131-282-00 (D)
1.5		1-131-250-00 (D)	-	-	1-131-267-00 (D)	1-131-283-00 (E)
2.2		-	-	1-131-259-00 (D)	1-131-268-00 (D)	1-131-284-00 (E)
3.3		-	1-131-255-00 (D)	-	1-131-269-00 (D)	-
4.7		1-131-251-00 (E)	1-131-171-00 (D)	-	1-131-270-00 (D)	-
6.8		-	-	1-131-260-00 (D)	1-131-271-00 (E)	-
10	-	-	1-131-256-00 (D)	-	1-131-272-00 (E)	-
15	-	1-131-252-00 (D)	-	1-131-261-00 (E)		
22	-	-	1-131-257-00 (E)	-		
33	1-131-176-00 (D)	1-131-253-00 (E)	1-131-173-00 (C)	-		
47	1-131-288-00 (F)	1-131-174-00 (D)	-	-		
100	1-131-177-00 (D)					

1/4 WATT CARBON RESISTORS Ⓐ

Note: Circled letter Ⓐ is applicable to European models only.

Ω	Part No.	Ω	Part No.	Ω	Part No.	Ω	Part No.	Ω	Part No.	Ω	Part No.	Ω	Part No.
1.0	1-246-401-00	10	1-246-425-00	100	1-246-449-00	1.0k	1-246-473-00	10k	1-246-497-00	100k	1-246-521-00	1.0M	1-246-545-00
1.1	1-246-402-00	11	1-246-426-00	110	1-246-450-00	1.1k	1-246-474-00	11k	1-246-498-00	110k	1-246-522-00	1.1M	1-210-814-00
1.2	1-246-403-00	12	1-246-427-00	120	1-246-451-00	1.2k	1-246-475-00	12k	1-246-499-00	120k	1-246-523-00	1.2M	1-210-815-00
1.3	1-246-404-00	13	1-246-428-00	130	1-246-452-00	1.3k	1-246-576-00	13k	1-246-500-00	130k	1-246-524-00	1.3M	1-210-816-00
1.5	1-246-405-00	15	1-246-429-00	150	1-246-453-00	1.5k	1-246-577-00	15k	1-246-501-00	150k	1-246-525-00	1.5M	1-210-817-00
1.6	1-246-406-00	16	1-246-430-00	160	1-246-454-00	1.6k	1-246-578-00	16k	1-246-502-00	160k	1-246-526-00	1.6M	1-210-818-00
1.8	1-246-407-00	18	1-246-431-00	180	1-246-455-00	1.8k	1-246-579-00	18k	1-246-503-00	180k	1-246-527-00	1.8M	1-210-819-00
2.0	1-246-408-00	20	1-246-432-00	200	1-246-456-00	2.0k	1-246-580-00	20k	1-246-504-00	200k	1-246-528-00	2.0M	1-210-820-00
2.2	1-246-409-00	22	1-246-433-00	220	1-246-457-00	2.2k	1-246-581-00	22k	1-246-505-00	220k	1-246-529-00	2.2M	1-210-821-00
2.4	1-246-410-00	24	1-246-434-00	240	1-246-458-00	2.4k	1-246-582-00	24k	1-246-506-00	240k	1-246-530-00	2.4M	1-244-754-00
2.7	1-246-411-00	27	1-246-435-00	270	1-246-459-00	2.7k	1-246-583-00	27k	1-246-507-00	270k	1-246-531-00	2.7M	1-244-755-00
3.0	1-246-412-00	30	1-246-436-00	300	1-246-460-00	3.0k	1-246-584-00	30k	1-246-508-00	300k	1-246-532-00	3.0M	1-244-756-00
3.3	1-246-413-00	33	1-246-437-00	330	1-246-461-00	3.3k	1-246-585-00	33k	1-246-509-00	330k	1-246-533-00	3.3M	1-244-757-00
3.6	1-246-414-00	36	1-246-438-00	360	1-246-462-00	3.6k	1-246-586-00	36k	1-246-510-00	360k	1-246-534-00	3.6M	1-244-758-00
3.9	1-246-415-00	39	1-246-439-00	390	1-246-463-00	3.9k	1-246-587-00	39k	1-246-511-00	390k	1-246-535-00	3.9M	1-244-759-00
4.3	1-246-416-00	43	1-246-440-00	430	1-246-464-00	4.3k	1-246-488-00	43k	1-246-512-00	430k	1-246-536-00	4.3M	1-244-760-00
4.7	1-246-417-00	47	1-246-441-00	470	1-246-465-00	4.7k	1-246-489-00	47k	1-246-513-00	470k	1-246-537-00	4.7M	1-244-761-00
5.1	1-246-418-00	51	1-246-442-00	510	1-246-466-00	5.1k	1-246-490-00	51k	1-246-514-00	510k	1-246-538-00	5.1M	1-244-762-00
5.6	1-246-419-00	56	1-246-443-00	560	1-246-467-00	5.6k	1-246-491-00	56k	1-246-515-00	560k	1-246-539-00		
6.2	1-246-420-00	62	1-246-444-00	620	1-246-468-00	6.2k	1-246-492-00	62k	1-246-516-00	620k	1-246-540-00		
6.8	1-246-421-00	68	1-246-445-00	680	1-246-469-00	6.8k	1-246-493-00	68k	1-246-517-00	680k	1-246-541-00		
7.5	1-246-422-00	75	1-246-446-00	750	1-246-470-00	7.5k	1-246-494-00	75k	1-246-518-00	750k	1-246-542-00		
8.2	1-246-423-00	82	1-246-447-00	820	1-246-471-00	8.2k	1-246-495-00	82k	1-246-519-00	820k	1-246-543-00		
9.1	1-246-424-00	91	1-246-448-00	910	1-246-472-00	9.1k	1-246-496-00	91k	1-246-520-00	910k	1-246-544-00		

HARDWARE NOMENCLATURE

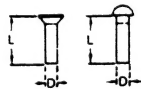
Screw:

- P 3 x 10

L: Length in mm
D: Diameter in mm
Type of head

Indicated slotted-head only.

Unless otherwise indicated, it means cross-recessed head (Phillips type).



Nut, Washer, Retaining ring:

N 3

Diameter of usable screw or shaft
Reference designation

Reference Designation	Shape	Description	Remarks
SCREWS			
P		pan-head screw	binding-head (B) screw for replacement
PWH		pan-head screw with washer face	binding-head (B) screw and flat washer for replacement
PS		pan-head screw with spring washer	binding-head (B) screw and spring washer for replacement
PSPW		pan-head screw with spring and flat washers	binding-head (B) screw and spring and flat washers for replacement
R		round-head screw	binding-head (B) screw for replacement
K		flat-countersunk-head screw	
RK		oval-countersunk-head screw	
B		binding-head screw	
T		truss-head screw	binding-head (B) screw for replacement
F		flat-fillister-head screw	
RF		fillister-head screw	
BV		brazer-head screw	

Reference Designation	Shape	Description	Remarks
SELF-TAPPING SCREWS			
TA		self-tapping screw	ex: TA, P 3 x 10
PTP		pan-head self-tapping screw	binding-head self-tapping (TA, B) screw for replacement
PTPWH		pan-head self-tapping screw with washer face	binding-head self-tapping (TA, B) screw and flat washer for replacement
PTTWH		pan-head thread-rolling screw with washer face	binding-head (B) screw and flat washer for replacement
SET SCREWS			
SC		set screw	
SC		hexagon-socket set screw	ex: SC 2.6 x 4, hexagon socket
NUT			
N		nut	
WASHERS			
W		flat washer	
SW		spring washer	
LW		internal-tooth lock washer	ex: LW3, internal
LW		external-tooth lock washer	ex: LW3, external
RETAINING RINGS			
E		retaining ring	
G		grip-type retaining ring	